



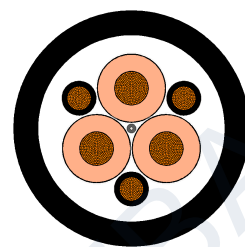
TEBAOFLEX CABLE

DATA SHEET

Mining&Industrial cable

(N)TSCGEWÖU Submersible

3.6/6 kV and 6/10 kV submersible cable



APPLICATION

Flexible submersible medium-voltage supply cable for permanent immersion in salty and brackish water up to 300 metres under high mechanical stresses. Suitable for pumps, dredges, floating docks and trailing operations of opencast mining equipment. Suitable for indoor and outdoor applications.

CONSTRUCTION

Component	Description
Phase conductor	Class 5 tinned copper conductor
Insulation	Rubber compound
Semi-conductive layers	Semi-conductive tape over the conductor, plus inner and outer semi-conductive rubber layers on the insulation
Earth conductor	Class 5 tinned copper conductor
Central filler	Semi-conductive compound on a textile polyester support
Inner sheath	EPR rubber compound water proofing
Outer sheath	CM rubber compound water proofing
Sheath colour	Black

CHARACTERISTICS

- Submersible cable for permanent salty and brackish water immersion up to 300 m.
- Designed for high mechanical stresses in pumps, dredges, floating docks and opencast mining equipment.
- Flexible rubber construction suitable for trailing duty and outdoor use.
- Flame retardant according to IEC/EN 60332-1-2.

OPERATING CHARACTERISTICS

Parameter	Value
Voltage rating U_0/U	3.6/6 kV; 6/10 kV
Test voltage	11 kV for 3.6/6 kV; 17 kV for 6/10 kV
Fixed ambient temperature	-40 °C to +90 °C
Flexed ambient temperature	-25 °C to +90 °C
Minimum bending radius	6 x overall diameter fixed; 10 x overall diameter flexed

STANDARDS

Parameter	Value
Cable standards	VDE 0250 Part 813, HD 22.16, VDE 0295, EN 60228
Flame retardant	IEC/EN 60332-1-2
Regulatory compliance	RoHS Directive ; REACH EC

TECHNICAL DATA

DIMENSIONS

Values are technical parameters only. Cable dimensions may vary due to manufacturing tolerances.

Voltage kV	Cores	Phase mm2	Earth mm2	Cond. dia. mm	Min OD mm	Max OD mm	Tensile N	Weight kg/km
3.6/6 kV								
3.6/6	3+3	25	25/3	6.8	39.9	41.6	1500	2580
3.6/6	3+3	35	25/3	7.8	42.9	44.6	2100	3080
3.6/6	3+3	50	25/3	9.4	46	47.7	3000	3710
3.6/6	3+3	70	35/3	11.2	49.8	51.6	4200	4670
3.6/6	3+3	95	50/3	12.7	55.8	57.6	5700	5880
3.6/6	3+3	120	70/3	14.4	59.6	61.4	7200	7140
3.6/6	3+3	150	70/3	16.3	66	68.3	9000	8690
3.6/6	3+3	185	95/3	17.6	67.9	70.2	11100	9890
6/10 kV								
6/10	3+3	25	25/3	6.8	39.9	42.2	1500	2620
6/10	3+3	35	25/3	7.8	42.9	45.2	2100	3120
6/10	3+3	50	25/3	9.4	46	48.3	3000	3750
6/10	3+3	70	35/3	11.2	49.8	52.2	4200	4710
6/10	3+3	95	50/3	12.7	55.8	58.2	5700	5920
6/10	3+3	120	70/3	14.4	59.6	62.1	7200	7180
6/10	3+3	150	70/3	16.3	66	69	9000	8730
6/10	3+3	185	95/3	17.6	67.9	70.9	11100	9930

ELECTRICAL DATA

CURRENT CARRYING CAPACITY

Area mm2	Floor A	Air A	1 layer	2 layer	3 layer	4 layer	5 layer	6 layer	7 layer
25	131	138	105	80	64	55	50	35	29
35	162	170	130	99	79	68	62	44	36
50	202	212	162	123	99	85	77	55	44
70	250	263	200	153	123	105	95	68	55
95	301	316	241	184	147	126	114	81	66
120	352	370	282	215	172	148	134	95	77
150	404	424	323	246	198	170	154	109	89
185	461	484	369	281	226	194	175	124	101

Ambient temperature of 30 °C.

VOLTAGE DROP

Area mm2	PF 0.7	PF 0.8	PF 0.9	PF 1.0
25	1.29	1.45	1.6	1.71
35	0.95	1.06	1.16	1.23
50	0.69	0.77	0.83	0.87
70	0.51	0.56	0.6	0.61
95	0.41	0.45	0.47	0.47
120	0.34	0.36	0.38	0.36
150	0.29	0.31	0.32	0.29
185	0.25	0.27	0.27	0.24

DE-RATING FACTORS

Ambient temp.	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C	75°C	80°C
De-rating factor	1.15	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.71	0.65	0.58	0.50	0.41

NOTES

- Current carrying capacity values are stated for the operating conditions shown above.
- Cable dimensions may vary due to manufacturing tolerances.

CERTIFICATIONS



TEBAOFLEX CABLE